

CLAIMS

We claim:

1. A method of promoting the growth of a population of cells comprising contacting the at least one cell with a composition comprising at least one polypeptide, wherein the polypeptide is selected from the group consisting of a FGFCX polypeptide, a FCTR_X polypeptide, and a combination of a FGFCX polypeptide and a FCTR_X polypeptide.

2. The method described in claim 1 wherein the cells are mammalian cells.

3. The method described in claim 1 wherein the cells are human cells.

4. The method described in claim 1 wherein the polypeptide comprises a FGFCX polypeptide, wherein the FGFCX polypeptide comprises

a) SEQ ID NO:2;

b) a variant of SEQ ID NO:2 wherein up to 15% of the residues provided in SEQ ID NO:2 are changed according to a conservative amino acid substitution;

c) a deletion mutant of SEQ ID NO:2; or

d) a variant of a deletion mutant of SEQ ID NO:2 wherein up to 15% of the residues provided in the deletion variant are changed according to a conservative amino acid substitution.

5. The method described in claim 1 wherein the polypeptide comprises a FCTR_X polypeptide, wherein the FCTR_X polypeptide comprises

a) a sequence chosen from the group consisting of SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12 and SEQ ID NO:14;

b) a variant of a sequence chosen from the group consisting of SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12 and SEQ ID NO:14, wherein up to 15% of the residues provided in SEQ ID NO:2 are changed according to a conservative amino acid substitution;

c) a deletion mutant of a sequence chosen from the group consisting of SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12 and SEQ ID NO:14;

d) a variant of a deletion mutant of a sequence chosen from the group consisting of SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12 and SEQ ID NO:14 wherein up to 15% of the residues provided in the deletion variant are changed according to a conservative amino acid substitution;

e) a p35 form of a FCTR_X polypeptide; or

f) a variant of a p35 form of a FCTR_X polypeptide wherein up to 15% of the residues provided in the deletion variant are changed according to a conservative amino acid substitution.

6. A method of treating an inflammatory pathology in a subject comprising administering to the subject a composition comprising a polypeptide wherein the polypeptide comprises a FGFC_X polypeptide or a FCTR_X polypeptide or a combination of a FGFC_X polypeptide and a FCTR_X polypeptide.

7. The method described in claim 6 wherein the subject is a mammal.

8. The method described in claim 6 wherein the subject is a human.

9. The method described in claim 6 wherein the polypeptide comprises a FGFC_X polypeptide, wherein the FGFC_X polypeptide comprises

a) SEQ ID NO:2;

b) a variant of SEQ ID NO:2 wherein up to 15% of the residues provided in SEQ ID NO:2 are changed according to a conservative amino acid substitution;

c) a deletion mutant of SEQ ID NO:2; or

d) a variant of a deletion mutant of SEQ ID NO:2 wherein up to 15% of the residues provided in the deletion variant are changed according to a conservative amino acid substitution.

10. The method described in claim 6 wherein the polypeptide comprises a FCTR_X polypeptide, wherein the FCTR_X polypeptide comprises

a) a sequence chosen from the group consisting of SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12 and SEQ ID NO:14;

b) a variant of a sequence chosen from the group consisting of SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12 and SEQ ID NO:14, wherein up to 15% of the residues provided in SEQ ID NO:2 are changed according to a conservative amino acid substitution;

c) a deletion mutant of a sequence chosen from the group consisting of SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12 and SEQ ID NO:14;

d) a variant of a deletion mutant of a sequence chosen from the group consisting of SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12 and SEQ ID NO:14 wherein up to 15% of the residues provided in the deletion variant are changed according to a conservative amino acid substitution;

- e) a p35 form of a FCTRX polypeptide; or
f) a variant of a p35 form of a FCTRX polypeptide wherein up to 15% of the residues provided in the deletion variant are changed according to a conservative amino acid substitution.

11. The method described in claim 6 wherein the inflammatory pathology is inflammatory bowel disease.

12. The method described in claim 6 wherein the inflammatory pathology is an inflammatory condition occurring in the colon.

13. The method described in claim 6 wherein the inflammatory pathology is an inflammatory condition occurring in the small intestine.

14. The method described in claim 6 wherein the inflammatory pathology is Crohn's disease.

15. The method described in claim 6 wherein the polypeptide comprises administered to the subject intravenously.

16. The method described in claim 6 wherein the polypeptide comprises administered to the subject subcutaneously.

17. A method of delaying the onset of an inflammatory pathology in a subject comprising administering to the subject a composition comprising a polypeptide wherein the polypeptide comprises a FGFCX polypeptide or a FCTRX polypeptide or a combination of a FGFCX polypeptide and a FCTRX polypeptide.

18. The method described in claim 17 wherein the subject is a mammal.

19. The method described in claim 17 wherein the subject is a human.

20. The method described in claim 17 wherein the polypeptide comprises a FGFCX polypeptide, wherein the FGFCX polypeptide comprises

- a) SEQ ID NO:2;
b) a variant of SEQ ID NO:2 wherein up to 15% of the residues provided in SEQ ID NO:2 are changed according to a conservative amino acid substitution;
c) a deletion mutant of SEQ ID NO:2; or

d) a variant of a deletion mutant of SEQ ID NO:2 wherein up to 15% of the residues provided in the deletion variant are changed according to a conservative amino acid substitution.

21. The method described in claim 17 wherein the polypeptide comprises a FCTR_X polypeptide, wherein the FCTR_X polypeptide comprises

a) a sequence chosen from the group consisting of SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12 and SEQ ID NO:14;

b) a variant of a sequence chosen from the group consisting of SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12 and SEQ ID NO:14, wherein up to 15% of the residues provided in SEQ ID NO:2 are changed according to a conservative amino acid substitution;

c) a deletion mutant of a sequence chosen from the group consisting of SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12 and SEQ ID NO:14;

d) a variant of a deletion mutant of a sequence chosen from the group consisting of SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12 and SEQ ID NO:14 wherein up to 15% of the residues provided in the deletion variant are changed according to a conservative amino acid substitution;

e) a p35 form of a FCTR_X polypeptide; or

f) a variant of a p35 form of a FCTR_X polypeptide wherein up to 15% of the residues provided in the deletion variant are changed according to a conservative amino acid substitution.

22. The method described in claim 17 wherein the inflammatory pathology is inflammatory bowel disease.

23. The method described in claim 17 wherein the inflammatory pathology is an inflammatory condition occurring in the colon.

24. The method described in claim 17 wherein the inflammatory pathology is an inflammatory condition occurring in the small intestine.

25. The method described in claim 17 wherein the inflammatory pathology is Crohn's disease.

26. The method described in claim 17 wherein the polypeptide comprises administered to the subject intravenously.

27. The method described in claim 17 wherein the polypeptide comprises administered to the subject subcutaneously.

28. A method of ameliorating an inflammatory pathology in a subject comprising administering to the subject a composition comprising a polypeptide wherein the polypeptide comprises a FGFCX polypeptide or a FCTRX polypeptide or a combination of a FGFCX polypeptide and a FCTRX polypeptide.

29. The method described in claim 28 wherein the subject is a mammal.

30. The method described in claim 28 wherein the subject is a human.

31. The method described in claim 28 wherein the polypeptide comprises a FGFCX polypeptide, wherein the FGFCX polypeptide comprises

- a) SEQ ID NO:2;
- b) a variant of SEQ ID NO:2 wherein up to 15% of the residues provided in SEQ ID NO:2 are changed according to a conservative amino acid substitution;
- c) a deletion mutant of SEQ ID NO:2; or
- d) a variant of a deletion mutant of SEQ ID NO:2 wherein up to 15% of the residues provided in the deletion variant are changed according to a conservative amino acid substitution.

32. The method described in claim 28 wherein the polypeptide comprises a FCTRX polypeptide, wherein the FCTRX polypeptide comprises

- a) a sequence chosen from the group consisting of SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12 and SEQ ID NO:14;
- b) a variant of a sequence chosen from the group consisting of SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12 and SEQ ID NO:14, wherein up to 15% of the residues provided in SEQ ID NO:2 are changed according to a conservative amino acid substitution;
- c) a deletion mutant of a sequence chosen from the group consisting of SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12 and SEQ ID NO:14;
- d) a variant of a deletion mutant of a sequence chosen from the group consisting of SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12 and SEQ ID NO:14 wherein up to 15% of the residues provided in the deletion variant are changed according to a conservative amino acid substitution;
- e) a p35 form of a FCTRX polypeptide; or

f) a variant of a p35 form of a FCTR_X polypeptide wherein up to 15% of the residues provided in the deletion variant are changed according to a conservative amino acid substitution.

33. The method described in claim 28 wherein the inflammatory pathology is inflammatory bowel disease.

34. The method described in claim 28 wherein the inflammatory pathology is an inflammatory condition occurring in the colon.

35. The method described in claim 28 wherein the inflammatory pathology is an inflammatory condition occurring in the small intestine.

36. The method described in claim 28 wherein the inflammatory pathology is Crohn's disease.

37. The method described in claim 28 wherein the polypeptide comprises administered to the subject intravenously.

38. The method described in claim 28 wherein the polypeptide comprises administered to the subject subcutaneously.

39. A method of preparing a pharmaceutical composition comprising combining at least one polypeptide effective in treating an inflammatory pathology with a pharmaceutically acceptable carrier, wherein the polypeptide is selected from the group consisting of a FGFC_X polypeptide, a FCTR_X polypeptide, and a combination of a FGFC_X polypeptide and a FCTR_X polypeptide.

40. The method described in claim 39 wherein the inflammatory pathology is inflammatory bowel disease, an inflammatory condition occurring in the colon, an inflammatory condition occurring in the small intestine, or Crohn's disease.

41. The method described in claim 39 wherein the pharmaceutical composition is suitable for intravenous administration to a subject.

42. The method described in claim 39 wherein the pharmaceutical composition is suitable for subcutaneous administration to a subject.

43. The method described in claim 39 wherein the polypeptide comprises a combination of a FGFC_X polypeptide and a FCTR_X polypeptide.

44. The method described in claim 39 wherein the polypeptide comprises a FGFCX polypeptide, wherein the FGFCX polypeptide comprises

- a) SEQ ID NO:2;
- b) a variant of SEQ ID NO:2 wherein up to 15% of the residues provided in SEQ ID NO:2 are changed according to a conservative amino acid substitution;
- c) a deletion mutant of SEQ ID NO:2; or
- d) a variant of a deletion mutant of SEQ ID NO:2 wherein up to 15% of the residues provided in the deletion variant are changed according to a conservative amino acid substitution.

45. The method described in claim 39 wherein the polypeptide comprises a FCTR_X polypeptide, wherein the FCTR_X polypeptide comprises

- a) a sequence chosen from the group consisting of SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12 and SEQ ID NO:14;
- b) a variant of a sequence chosen from the group consisting of SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12 and SEQ ID NO:14, wherein up to 15% of the residues provided in SEQ ID NO:2 are changed according to a conservative amino acid substitution;
- c) a deletion mutant of a sequence chosen from the group consisting of SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12 and SEQ ID NO:14;
- d) a variant of a deletion mutant of a sequence chosen from the group consisting of SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12 and SEQ ID NO:14 wherein up to 15% of the residues provided in the deletion variant are changed according to a conservative amino acid substitution;
- e) a p35 form of a FCTR_X polypeptide; or
- f) a variant of a p35 form of a FCTR_X polypeptide wherein up to 15% of the residues provided in the deletion variant are changed according to a conservative amino acid substitution.